

AGILENT TECHNOLOGIES, INC.  
Legal Department, DL429  
Intellectual Property Administration  
P. O. Box 7599  
Loveland, Colorado 80537-0599



**Official** PATENT APPLICATION  
ATTORNEY DOCKET NO. 10010214-1

IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Brian James Misek et al

Serial No.: 09/821180

Examiner: Zamani Ali A.

Filing Date: Mar 28, 2001

Group Art Unit: 2674

Title: An Optical Mouse Having An Integrated Processor

COMMISSIONER FOR PATENTS

PO Box 1450

Alexandria, VA 22313-1450

TRANSMITTAL LETTER FOR RESPONSE/AMENDMENT

Sir:

Transmitted herewith is/are the following in the above-identified application:

- (X) Response/Amendment ( ) Petition to extend time to respond  
( ) New fee as calculated below ( ) Supplemental Declaration  
(X) No additional fee (Address envelope to "Box Non-Fee Amendments")  
( ) Other: \_\_\_\_\_ (fee \$ \_\_\_\_\_)

CLAIMS AS AMENDED BY OTHER THAN A SMALL ENTITY						
(1) FOR	(2) CLAIMS REMAINING AFTER AMENDMENT	(3) NUMBER EXTRA	(4) HIGHEST NUMBER PREVIOUSLY PAID FOR	(5) PRESENT EXTRA	(6) RATE	(7) ADDITIONAL FEES
TOTAL CLAIMS	8	MINUS	20	= 0	X \$18	\$ 0
INDEP. CLAIMS	1	MINUS	3	= 0	X \$84	\$ 0
[ ] FIRST PRESENTATION OF A MULTIPLE DEPENDENT CLAIM					+ \$280	\$ 0
EXTENSION FEE	1ST MONTH \$110.00	2ND MONTH \$410.00	3RD MONTH \$930.00	4TH MONTH \$1450.00		\$ 0
OTHER FEES						\$
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT						\$ 0

Charge \$ 0 to Deposit Account 50-1078. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 50-1078 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 50-1078 under 37 CFR 1.16, 1.17, 1.19, 1.20 and 1.21. A duplicate copy of this sheet is enclosed.

I hereby certify that this paper is being facsimile transmitted to the Patent and Trademark Office on the date shown below.

Date of Facsimile: July 10, 2003

Typed Name: Katherine Lopez Diangson

Signature: *Katherine Lopez Diangson*

Respectfully submitted,

Brian James Misek et al

By *Pamela Lau Kee*

Pamela Lau Kee

Attorney/Agent for Applicant(s)  
Reg. No. 36,184

Date: July 10, 2003

Telephone No.: (408) 553-3059

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<input type="checkbox"/> I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231. Date of Deposit: Typed Name: Signature: _____	<input checked="" type="checkbox"/> I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office on the date below: Date of Facsimile: 07/10/2003 Typed Name: Katherine Lopez Diangson Signature: <i>Katherine Lopez Diangson</i>
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE****Inventor(s): Brian J. Misek****Examiner: Zamani, Ali A.****Serial No.: 09/821,180****Group Art: 2674****Filing Date: 03/28/2001****Title: Architecture for an Optical Mouse using an Integrated Processor****Amendment**

Dear Sir:

This is in response to an Office Action, dated 10 April 2003, having a three-month statutory period for response expiring 10 July 2003.

Claims 1-8 were rejected under 35 U.S.C. §102(e) as being anticipated by Hilton (U.S.P.N. 5,798,748)

Hilton discloses a force and torque converter to be used with an optical sensing circuitry. In particular, the circuit provides a detection signal in response to a drive signal for driving a plurality of first sensor components. The signal processing mechanism 300 is shown in Figure 19. Sensor sets (shown in Figures 5-9), e.g. 104, are configured so that the LEDs of each sensor set belong to an emitting array 308, and the photodiode of each sensor set belongs to a sensing array 310. The control circuit 302 provides a respective output to a digital-to-analog converter (DAC) 304, a drive selection circuit 306, and a detection circuit 312. The sensor array 310 generates data. The detection circuit 312 receives the data. The comparison circuit 314 receives the data from the detection circuit 312 and a series of test signals from the DAC 304. The DAC 304 sends

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an analog signal to the drive selection circuit 306. In turn, drive selection circuit 306 activates an LED of the emitting array 308. (see col. 18, line 53 to col. 19, line 27)

"A claim is anticipated only if **each and every element** as set forth in the claim is found ... in a single prior art reference." *Verdegall Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, USQP2D 1051 (Fed. Cir. 1987) (Emphasis added). In fact, for a valid rejection under 35 U.S.C. 102(b), "[t]he **identical invention** must be shown in as **complete detail** as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913 (Fed. Cir. 1989) (Emphasis added). Moreover, "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494 (CCPA 1970) (Emphasis added).

In distinct contrast to the prior art, Applicants disclose an optical sensor, an **analog-to-digital converter**, a **programmable** microprocessor, RAM, memory, an optional digital signal processor, and an optional hardware controller. The programmable microprocessor 16 allows the user to customize features, e.g. navigation parameters, user interface operations, and power savings (Paragraph [0004] and [0007]).

Nowhere does the prior art suggest or teach that an **analog-to-digital converter (ADC)** be used in an optical mouse, as the Applicants have. Hilton discloses using a **digital-to-analog converter (DAC)**. Nor is there any teaching that a navigation device could incorporate user customization. In claim 1 as recited, the unitary substrate includes an optical sensor, an analog-to-digital converter, microprocessor, and memory. Claim 1 is believed patentable. Claims 2-8 are believed patentable based on the allowability of claim 1.

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**Conclusion**

If the Examiner has any further questions or would like to discuss this application in more detail, he is invited to call the applicants' agent at the telephone number given below. The applicants respectfully suggest that the claims presently in the application are distinct over the prior art and that the application is now in condition for allowance. Accordingly, the applicants solicit favorable action.

Respectfully submitted,

Brian J. Misek

*Pamela Lau Kee*

Pamela Lau Kee

Patent Reg. No. 36,184

July 10, 2003  
**Agilent Technologies**  
**Intellectual Properties Administration**  
Legal Department, M/S DL-429  
815 SW 14<sup>th</sup> Street  
Loveland, CO 80537  
(408) 553-3059